

Work Order ID 80261 -1

February-15-12 3:34:46 PM

\*80261\*

Page 1

Item ID: D3560-043

Revision ID:

Item Name: Arm Weldment

Start Date: 15/02/2012 Start Qty: 10.00

Required Date: 29/02/2012 Req'd Qty: 10.00

Reference:

Accept

\*N9000040100\*

Setup Start \*NS1\*

Stop \*NS2\*

Cust Item ID:  
Customer:

Approvals: Process Plan: M.C.J

QC:

Date: 12/02/12 Tooling:

Date: SPC (Y/N):

Date:

Date:

Run Start \*NR1\*

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw No.

Revision No.

D3560

Rev D

100

\*100\*

Bandsaw

Jeaspa Bandsaw

BAND SAW

Memo

Cut blanks 15.500" long

0.00

0.00

OK 12/03/09

9 6

110

\*110\*

HAAS 1

HAAS CNC vertical machine #1

HAAS CNC VERTICAL MACHINING #1

Memo

1- Mill as per Folio FA695 Rev: 4A & Dwg D3560 Rev: D  
2-C'sink 0.196" hole on manual mill as per dwg D3560  
3-Deburr per dwg D3560

0.00

0.00

OK 12/03/13

9 0

OK 12-3-15

120

\*120\*

QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

Memo

0.00

0.00

OK 12/13/13

9 0

# Work Order ID 80261

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**\*80261\***

Page 2

Item ID: D3560-043

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Arm Weldment

Start Date: 15/02/2012 Start Qty: 10.00

Required Date: 29/02/2012 Req'd Qty: 10.00

Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130

QC8- Inspect parts - second check

0.00

**\*130\***

QC

Memo

0.00

BA 12/03/16

9

6

Quality Control

140

Large Fab

0.00

**\*140\***

Large Fab

Memo

0.00

Large Fab

1-Weld assembly as per dwg D3560

STEP:

1- clean material (buff bracket and bottom of arm with blue pad )

2- set up bracket and arm on jig

3- preheat bracket and arm with torch

4- clean before welding with brush

5- set up machine to 135 amps

6- weld across bottom and top ends

7- reheat with torch ( 65 deg C )

8- on one side weld from bottom to top half way

9- same for other side (half way)

10- from half way point weld the rest of the first side (ease off pedal near end)

11- same for remaining side (ease off pedal near end)

Alum. Steel # 122130

5 5 12.08.12 12.08.12

# Work Order ID 80261

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Page 3

Item ID: D3560-043

Accept

\*N9000040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Arm Weldment

Start Date: 15/02/2012 Start Qty: 10.00

\*10\*

Cust Item ID:

Required Date: 29/02/2012 Req'd Qty: 10.00

\*10\*

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

150	QC5- Inspect part completeness to step on W/O	0.00							
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\*150\*

QC

Quality Control

Memo

0.00

5x

12.8.1



160	QC9- Inspect visual per QSI004- Fusion Welds	0.00							
-----	--	------	--	--	--	--	--	--	--

\*160\*

QC

Quality Control

Memo

0.00

5

12/08/01



170	Chemical Conversion Coat per QSI005 4.1	0.00							
-----	---	------	--	--	--	--	--	--	--

\*170\*

HandFinish

Hand Finishing

Memo

0.00

5 p

Ac  
12.08-01



# Work Order ID 80261

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**\*80261\***

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Item ID: D3560-043

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Item Name: Arm Weldment

Stop **\*NS2\***

Start Date: 15/02/2012 Start Qty: 10.00

**\*10\***

Cust Item ID:

Required Date: 29/02/2012 Req'd Qty: 10.00

**\*10\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180 <b>*180*</b> QC Quality Control	QC3- Inspect Part Finish  Memo	0.00  0.00				5	φ		12.08.01
190 <b>*190*</b> Small Fab Small Fab	Small Fab  Memo I-Press bushing in D3560 arm per dwg D3562	0.00  0.00				5x			12/08/01
200 <b>*200*</b> QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00  0.00				5			

SMB

12.8.02

DAS  
16  
9-8

12/08/02

1822 - 1823 - 1824  
1825 - 1826 - 1827

# Work Order ID 80261

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Page 5

Item ID: D3560-043

Revision ID:

Item Name: Arm Weldment

Start Date: 15/02/2012 Start Qty: 10.00

Required Date: 29/02/2012 Req'd Qty: 10.00

Reference:

Accept

\*N900040100\*

Setup Start \*NS1\*

Stop \*NS2\*

Cust Item ID:

Customer:

Approvals: Process Plan: Date:

QC: Date:

Tooling: Date:

SPC (Y/N): Date:

Run Start \*NR1\*

Stop \*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description:

Set Up/  
Run Hours

Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
---------	--------	-----------	------------	------------	---------------	-------------

210

Identify as per dwg & Stock Location: WA

0.00

\*210\*

Packaging

Memo

0.00

Packaging

\*\*\* STOCK IN STEP CELL\*\*\*

5

φ

Ac  
12.08.02

220

QC21- Final Inspection - Work Order Release

0.00

\*220\*

QC

Memo

0.00

Quality Control

12/8/3 D

MC5 12/08/02





# Picklist Print

February-15-12 3:34:49 PM

Page 1

Work Order ID: 80261

\*80261\*

Parent Item: D3560-043

\*D3560-043\*

Parent Item Name: Arm Weldment

Start Date: 15/02/2012

Required Date: 29/02/2012

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP Rev:A New Issue 07.05.24 EC  
IPP Rev B ECN 987 07.10.09 EC  
IPP Rev:C ECN1048 07-12-18 DD verified by: EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2808

Manufactured

No

100

Each

70.0000

1

10

\*D2808\*

Bushing

\*\*

Location

Loc Qty

Loc Code

GA

70

32896

2

76188

3

78950

24

79688

41

M6061T6B0.500X05.00

Purchased

No

140

f

51.2274

1.295

13.63158

0

\*M6061T6B0 500X05 000\*

6061-T6 Bar .500 x 5.00

\*\*

Location

Loc Qty

Loc Code

MAT001

21.834

112154

6.935

117933

2.123

119346

12.776

MAT004

29.3934

120243

24

120421

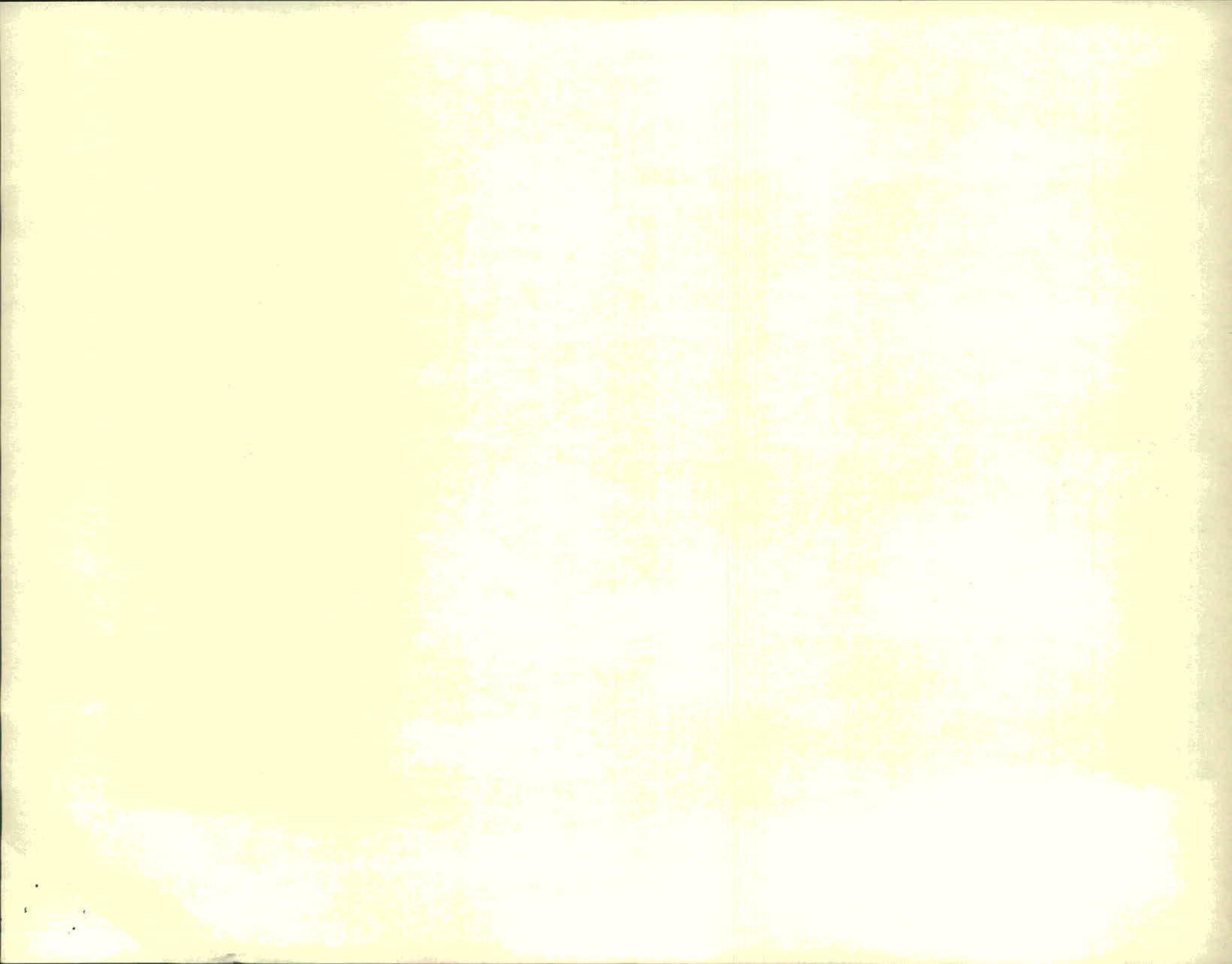
5.3934

M120866 X

11.7

ark 12/03/09





# Picklist Print

February-15-12 3:34:49 PM

Page 2

Work Order ID: 80261

Parent Item: D3560-043

Parent Item Name: Arm Weldment

\*80261\*

\*D3560-043\*

Start Date: 15/02/2012

Required Date: 29/02/2012

Start Qty: 10.00

Required Qty: 10.00

D3592-1

Manufactured No

190

Each

27.0000

1

10

\*D3592-1\*

Plate

\*\*

*Handwritten:* 12.08.01  
12.08.01

Location

Loc Qty

Loc Code

WA

*Handwritten:* B8037A

4

78934

4

W-002

*Handwritten:* B80379

23

47015

2

78934

21

*Handwritten:* 5

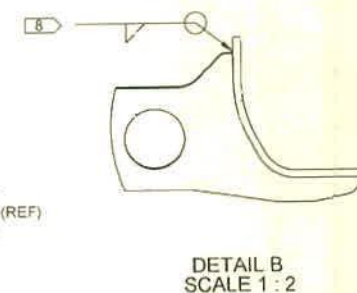
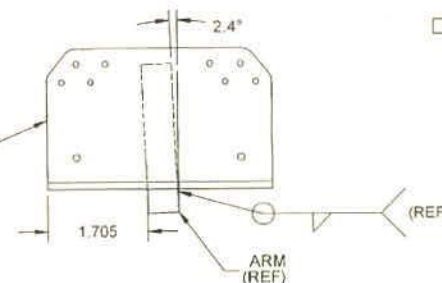
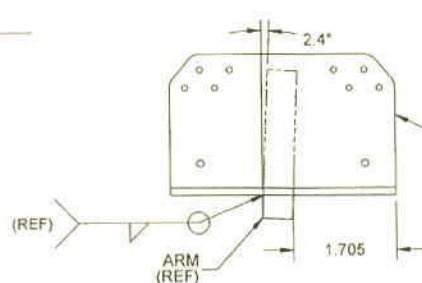
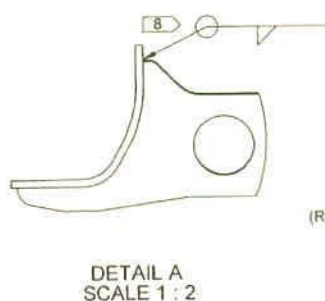
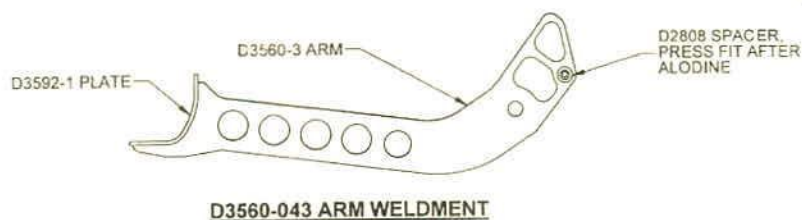
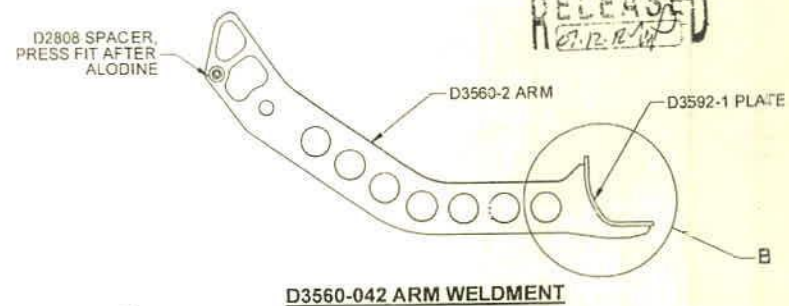
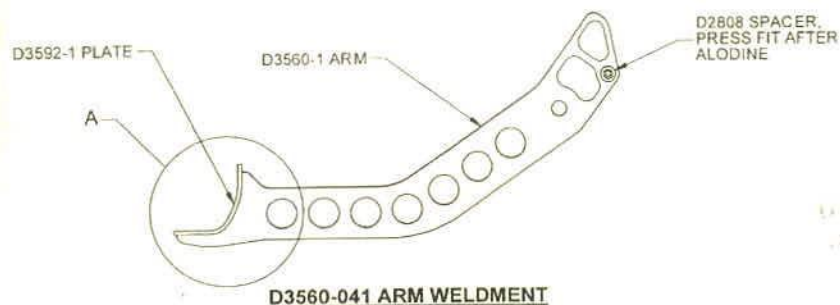
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RELEASED  
07.12.16



# PARTS LIST

QTY -041	QTY -042	QTY -043	QTY -044	P/N	DESCRIPTION
X				D3560-041	ARM WELDMENT
	X			D3560-042	ARM WELDMENT
		X		D3560-043	ARM WELDMENT
			X	D3560-044	ARM WELDMENT
1	1	1	1	D2808	SPACER
1				D3560-1	ARM
	1			D3560-2	ARM
		1		D3560-3	ARM
			1	D3560-4	ARM
1	1	1	1	D3592-1	PLATE

## NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.015 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 1.23 lbs (TYP)
- 8) WELDING: PER DART QSI 004

DESIGN	ADD D2808 PRESS FIT NOTE, REDRAWN IN SOLIDWORKS	DC	07.11.16
DRAWN	REMOVE POWDER COAT	CP	07.08.16
CHECKED	REDESIGN AS WELDMENT, ADD POCKETS	CP	07.01.15
MFG. APPR.	NEW ISSUE	CP	06.09.25
APPROVED	REV.	DESCRIPTION	BY DATE
DE APPR.			
DATE	07.11.16		

**DART AEROSPACE LTD**  
HAWKESBURY, ONTARIO, CANADA

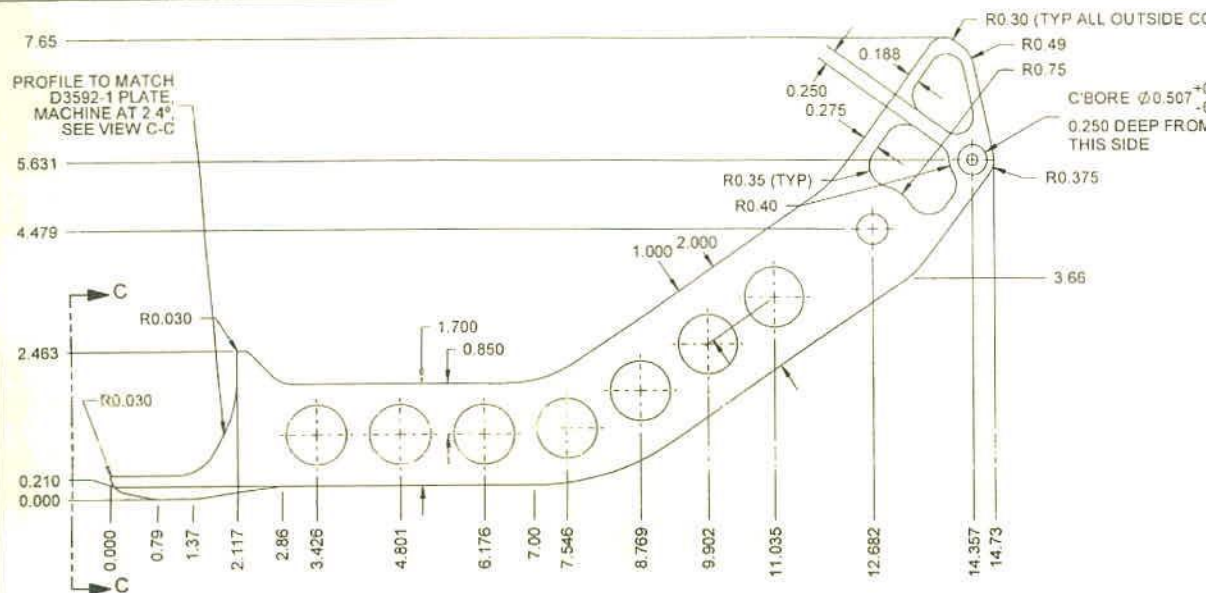
DRAWING NO. **D3560** REV. D  
SHEET 1 OF 5  
TITLE **ARM WELDMENT** SCALE 1:4

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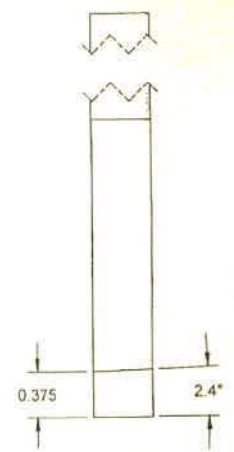
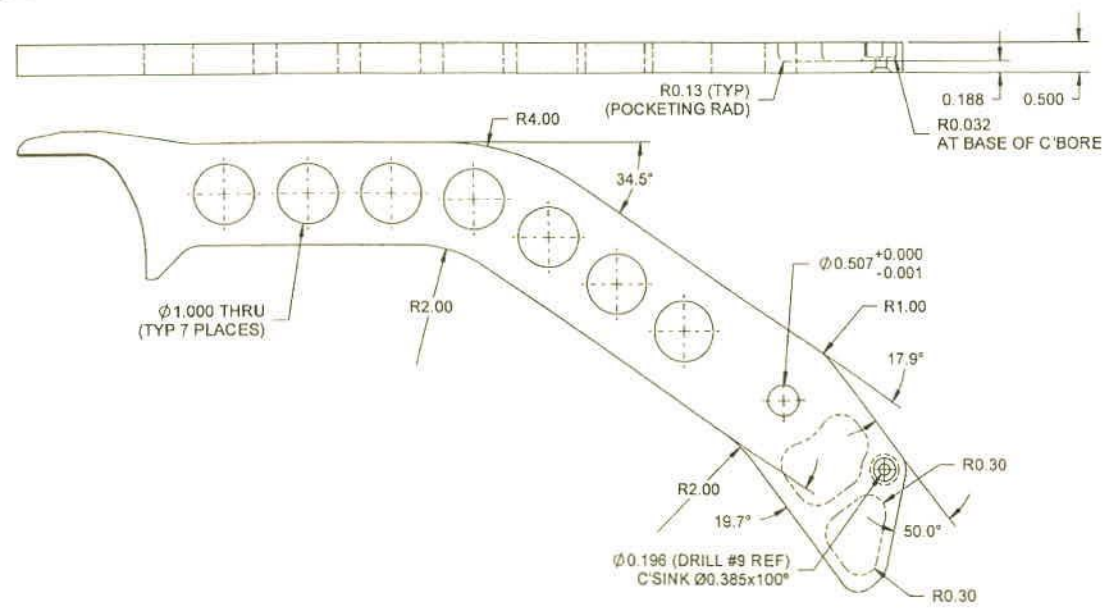


80261



### D3560-1 ARM WELDMENT

- NOTES:
- 1) MATERIAL: 6061-T6 (OR 6061-T651/T6511/T6511/T652) BAR, 0.100 THICK  
PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR  
PER AMS-QQ-A-200/8 (OR AMS 4160)  
(REF. DART SPEC. M6061T6B0.500)
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.015 MAX
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: 1.05 lbs



VIEW C-C  
SCALE 1:1

RELEASED  
07.12.16

DESIGN	g	<b>DART AEROSPACE LTD</b>	
DRAWN	gc	HAWKESBURY, ONTARIO CANADA	
CHECKED		DRAWING NO.	REV. D
MFG. APPR.		D3560	SHEET 2 OF 6
APPROVED		TITLE	SCALE
DE APPR.		ARM WELDMENT	12
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8 7 6 5 4 3 2 1

R0.30 (TYP ALL OUTSIDE CORNERS EXCEPT WHERE INDICATED)

R0.49

R0.75

C'BORE  $\phi 0.507^{+0.000}_{-0.001}$

0.250 DEEP FROM THIS SIDE

R0.375

0.188

0.250

0.275

R0.35 (TYP)

R0.40

2.000

1.000

1.700

0.850

R0.030

2.463

R0.030

0.210

0.000

14.73

14.357

12.682

11.035

9.902

8.769

7.546

7.00

6.176

4.801

3.426

2.86

2.117

1.37

0.79

0.000

3.66

0.500

0.188

R0.032

AT BASE OF C'BORE

R0.13 (TYP) (POCKETING RAD)

R4.00

34.5°

R2.00

$\phi 0.507^{+0.000}_{-0.001}$

R1.00

17.9°

$\phi 0.196$  (DRILL #9 REF)

C'SINK  $\phi 0.385 \times 100^\circ$

R0.30

50.0°

R2.00

19.7°

R0.30

$\phi 1.000$  THRU (TYP 7 PLACES)

PROFILE TO MATCH D3592-1 PLATE, MACHINE AT 2.4°, SEE VIEW D-D

**D3560-2 ARM**

**NOTES**

1) MATERIAL: 6061-T6 (OR 6061-T651/T6510/T6511/T62) BAR, 0.500 TH CK.  
PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR  
PER AMS-QQ-A-200/8 (OR AMS 4160)  
(REF. DART SPEC. M6061T6B0.500)

2) FINISH: NONE

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.015 MAX

6) IDENTIFICATION: N/A

7) WEIGHT: 1.05 lbs

2.4°

0.375

**VIEW D-D**  
SCALE 1:1

DESIGN	JP	<b>DART AEROSPACE LTD</b>	
DRAWN	JC	HAWKESBURY, ONTARIO, CANADA	
CHECKED	JP	DRAWING NO.	REV. D
MFG. APPR.	JP	<b>D3560</b>	SHEET 3 OF 5
APPROVED	AM	TITLE	SCALE
DE APPR.	JP	<b>ARM WELDMENT</b>	1:2
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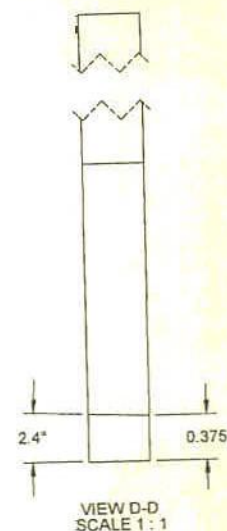
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RELEASE  
07-12-12

## D3560-2 ARM

## NOTES

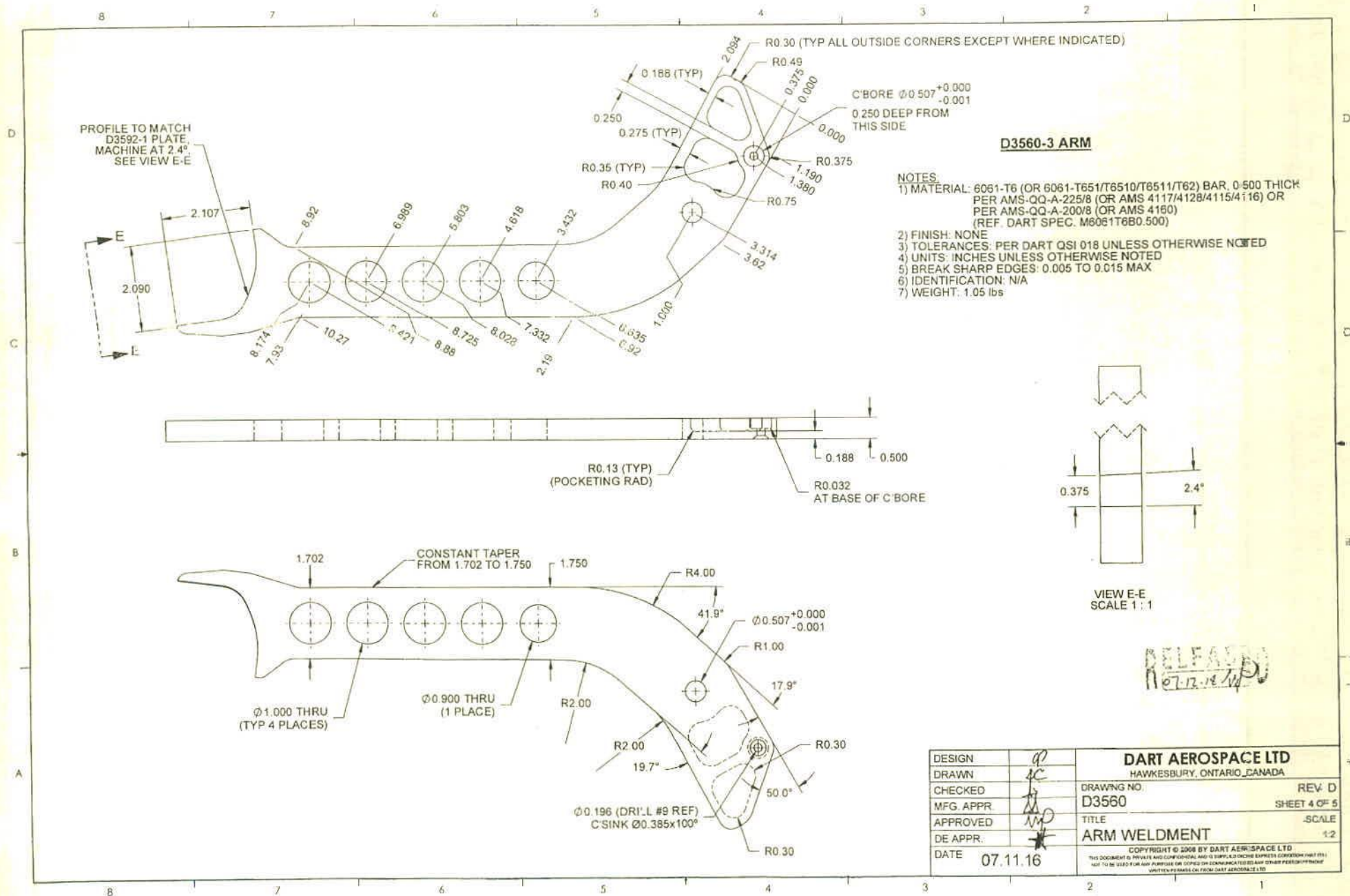
- NOTES**
- 1) MATERIAL: 6061-T6 (OR 6061-T651/T6510/T6511/T62) BAF, 0.500 TH CK  
PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OF  
PER AMS-QQ-A-200/8 (OR AMS 4160)  
(REF. DART SPEC. M6061T680.500)
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.015 MAX
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: 1.05 lbs



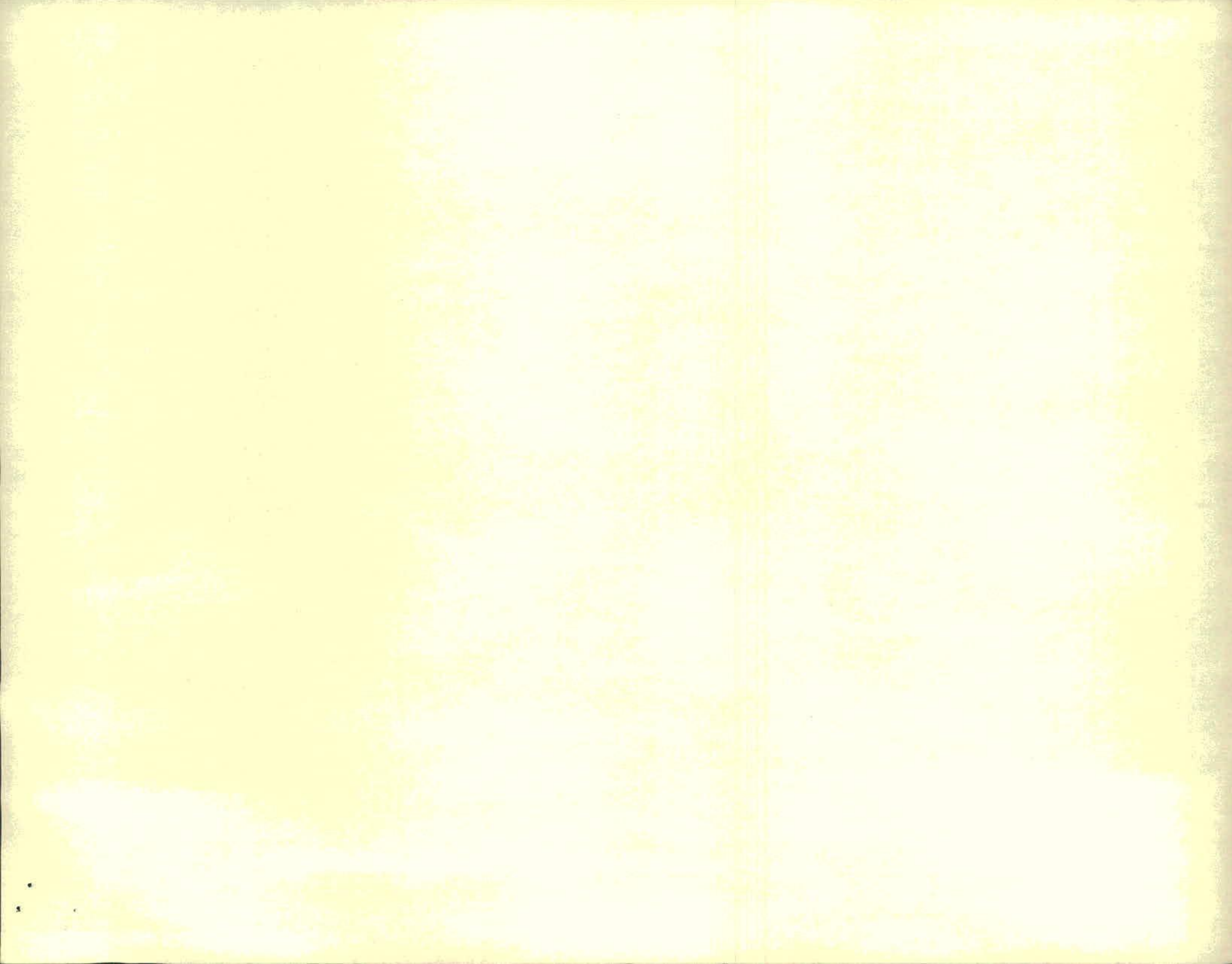
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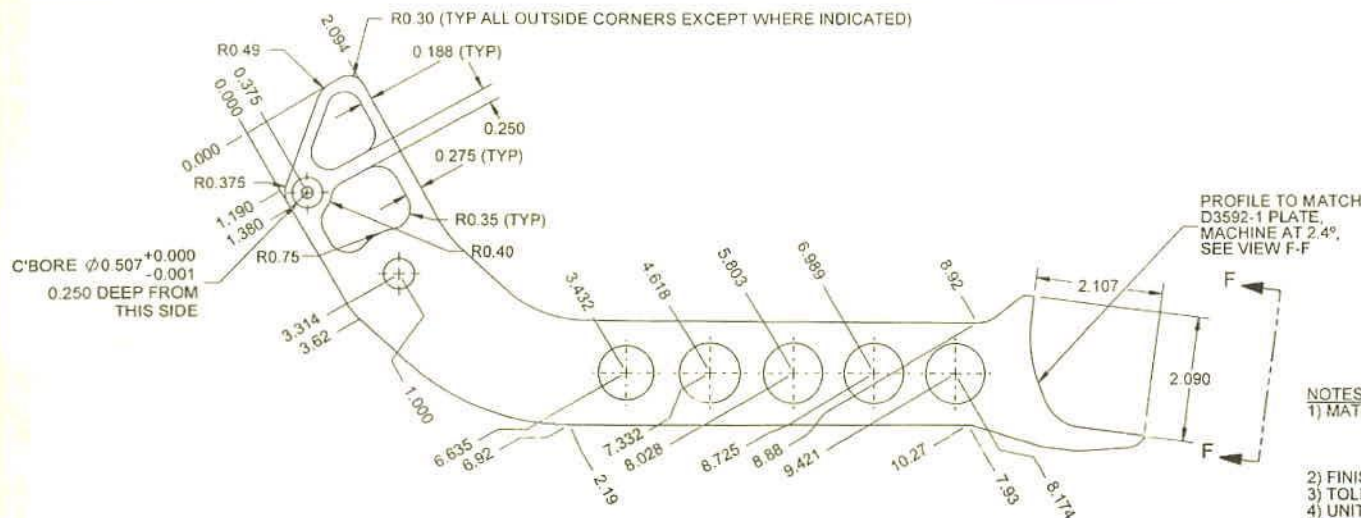
80261



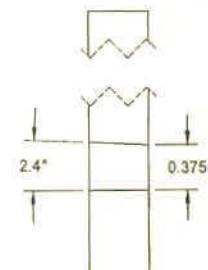
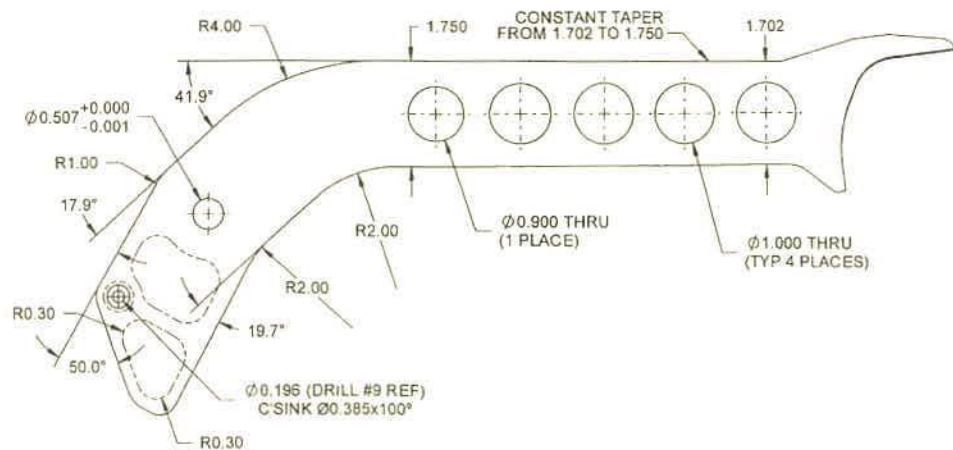
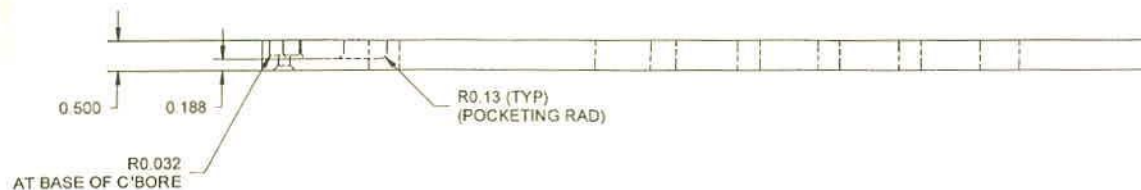




80261

**D3560-4 ARM****NOTES:**

- 1) MATERIAL: 6061-T6 (OR 6061-T651/T6510/T6511/T62) BAR, 0.500 THICK  
 PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR  
 PER AMS-QQ-A-200/8 (OR AMS 4160)  
 (REF. DART SPEC. M6061T6B0.500)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.015 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 1.05 lbs

VIEW F-F  
SCALE 1:1

167.12.18 W/P

DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN	EC	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. D
MFG. APPR.		D3560	SHEET 5 OF 5
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12 11 10 9 8 7 6 5 4 3 2 1